

## Y6 Maths: Place value, estimation & rounding

P1

read, write, order and compare **digit values** up to 10,000,000

P2

round whole numbers to a required degree of accuracy

P3

use negative numbers accurately; calculate **intervals** across zero

P4

**solve** number problems and practical problems that involve place value knowledge

## Y6 Maths: Addition & subtraction, multiplication & division

AS1

use the **long** method to multiply a 4-digit number by 2-digits

AS2

use the **long** method to divide a 4-digit number by 2-digits; present **remainders** appropriately, *e.g. as fractions or by rounding*

AS3

use **short division** to calculate 4-digits  $\div$  2-digits; present remainders appropriately

AS4

**mental maths:** calculate combinations of  $\times \div + -$  using large numbers

AS5

**identify** common factors, common multiples and prime numbers

AS6

know the **order of operations** to solve statements, *e.g.  $2 + 3 \times 4 = 14$*

AS7

**decide how** to solve multi-step addition and subtraction problems; explain choices

AS8

**solve** problems that combine  $+ - \times \div$

AS9

use **estimation** to check answers and assess accuracy

F1

convert fractions: use **common factors** to simplify; use **common multiples** to give two fractions the same denominator

F2

order fractions, including fractions that are greater than 1 whole

F3

divide proper fractions by whole numbers

F4

make **equivalent fractions** in order to add and subtract mixed numbers and those with different denominators e.g.  $1\frac{3}{5} - \frac{8}{10} = ?$

F5

multiply simple pairs of proper fractions; give the answer in its simplest form e.g.  $\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$

F6

relate fractions to division; calculate decimal fraction equivalents

F7

know **value** of tenths, hundredths, thousandths; multiply and divide numbers by 10, 100 or 1000, giving answers to 3 decimal places

F8

multiply numbers with up to two decimal places by whole numbers

F9

use **written division** methods to give answers to two decimal places

F10

solve problems in which answers must be **rounded accurately**

F11

know and use simple fraction decimal percentage **equivalences**

## Y6 Maths: Ratio & proportion

R1

solve problems in which two quantities have sizes that are **relative** to each other



R2

**solve** problems involving calculating percentages in order to make comparisons



R3

solve problems in which the **scale factor** of similar shapes is known or can be found



R4

use fraction and percentage skills to solve **unequal sharing** and **grouping** problems



## Y6 Maths: Algebra

A1

use simple **formulae**



A2

write and describe **linear number sequences**



A3

rewrite **missing number** problems algebraically



A4

find pairs of numbers to **satisfy equations** with two unknowns, e.g.  $a + b = 300g$



A5

suggest possible numbers for combinations of two **variables**, e.g. if  $2a + b = 12$  then  $a = 5$  and  $b = 2$  or  $a = 3$  and  $b = 6$



M1

solve problems by converting **units of measure** with answers up to 3 decimal places

M2

**convert** standard measurements of length, mass, volume and time from a smaller unit to a larger unit; give answers to 3 decimal places

M3

convert **miles to kilometres** and vice versa

M4

know that shapes can have the **same areas** but **different perimeters** and vice versa

M5

know when and how to use the **formulae** for area and volume

M6

calculate, estimate and compare **volume** of cuboids using standard units, *e.g.*  $\text{cm}^3$ 

M7

calculate the area of **parallelograms** and **triangles**

S1

read and construct **pie charts** and **line graphs**; use these to solve problems

S2

calculate and understand the **mean** as an average

G1

draw 2D shapes using given dimensions and angles



G2

recognise, describe and **build** simple 3D shapes; make nets

G3

**classify** geometric shapes by property and size; find **missing angles** in triangles, quadrilaterals and regular polygons

G4

illustrate and name parts of **circles**: radius, diameter and circumference; know  $d = 2r$ 

G5

**find angles** at a point, on a straight line, or when vertically opposite; find missing angles

G6

describe **coordinates** in all four quadrants

G7

draw, **translate** and **reflect** simple shapes on the coordinate plane

